

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A method of establishing a radio connection in a satellite communication system ~~in which a remote station is that comprises remote stations~~ coupled to a central station by a satellite network, wherein different remote stations are located in different geographic domains, the method being performed by a remote station in a geographic domain and comprising ~~the steps of:~~

~~establishing~~ receiving, by from the central station, a list of information about available satellite network resources for one or more geographic domains;

~~publishing, by the central station, the list for said remote station;~~

~~identifying, by said remote station, a set of said published~~ satellite network resources needed to establish the radio connection, wherein identifying comprises:[[:]]

determining a current geographic location of the remote station;

referencing a database of geographic domains using the geographic location to identify the geographic domain with which the remote station is associated; and

referencing the list of information using the geographic domain to establish which satellite network resources are available to the remote station;

notifying, ~~by said remote station,~~ the central station about the ~~identified~~ satellite network resources that are available to the remote station;

seizing, ~~by said remote station,~~ the ~~set of identified~~ satellite network resources needed to establish the radio connection to thereby establish the radio connection; and

~~updating~~ receiving, by from the central station, ~~said~~ an updated version of the list of information ~~available resources to thereby~~ that has been updated to reflect the seizing of the satellite network resources ~~said set; and~~

~~communicating, by the central station, the updated list to said remote station.~~

2. (Currently Amended) ~~A method according to~~ The method of claim 1, wherein~~[[:]]~~  
~~the system comprises a plurality of remote stations coupled to the central station;~~  
~~the plurality of remote stations are located in a plurality of geographic domains; and~~  
~~wherein, in regard to a particular said remote station:~~

~~the establishing step comprises establishing a list of information about~~  
~~available network resources for the particular domain in which the particular~~  
~~remote station is located;~~

~~the publishing step comprises publishing the list~~ of information is  
published by the central station for receipt by the remote station ~~to those said~~  
~~remote stations located in said domain; and~~

~~the communicating step comprises communicating the updated list to said~~  
~~remote stations located in said domain.~~

3. (Currently Amended) ~~A method according to~~ The method of claim 1 2, wherein the information about available satellite network resources comprises identification of outbound and inbound channels, availability of channel capacity, and energy density of channels in the resource domain.

4. (Currently Amended) ~~A method according to~~ The method of claim 1 2, ~~comprising the further steps of: adjusting the~~ wherein a size of said at least one of the geographic domains changes domain; and

wherein receiving the list of information comprises receiving, from the central station, amending the corresponding an amended list of information about available network resources that reflects a change in the size of the at least one of the geographic domains for the particular domain to reflect the adjusted domain size.

5. (Canceled)

6. (Currently Amended) ~~A method according to~~ The method of claim 1 5, wherein the database of geographic domains ~~is in provided to~~ stored on the remote station when the remote station is manufactured.

7. (Currently Amended) ~~A method according to~~ The method of claim 1 5, wherein the remote station receives the database of geographic domains ~~in provided to the remote station~~ before it is determined to establish the radio connection.

8. (Currently Amended) ~~A method according to~~ The method of claim 1 5, wherein the remote station receives the database of geographic domains ~~in provided to the remote station~~ when after it is determined to establish the radio connection.

9. (Currently Amended) ~~A method according to~~ The method of claim 1, wherein the ~~network is a satellite network and the publishing step is performed~~ list of information is received using one of code division multiple access (CDMA) ~~CDMA~~ and time division multiple access (TDMA) ~~TDMA~~ modulation.

10. (Currently Amended) ~~A method according to~~ The method of claim 1, wherein the satellite communication system comprises:

~~said plurality of remote stations coupled to a plurality of central stations~~ via one or more satellites; and

~~a said wherein the remote station may~~ is configured to switch ~~transit~~ between operation with ~~one said the central station to~~ and any other ~~said central station~~ for which the remote station can receive incoming communications ~~from the central stations~~.

11. (Currently Amended) ~~A method according to~~ The method of claim 1, wherein:  
the list of information ~~is divided into~~ comprises at least one of static and dynamic information; and

~~the~~ an updated version of the list of information comprising static information is ~~published~~ received less frequently than ~~the~~ an updated version of the list of information comprising dynamic information.

12. (Currently Amended) ~~A method according to~~ The method of claim 11, wherein the static information comprises, in regard to inbound and outbound channels that are allocated for use in a resource domain, at least one of frequency, timeslot, code sequence, turbo-coding rate, modulation type, and Grade of Service.

13. (Currently Amended) ~~A method according to~~ The method of claim 11, wherein the dynamic information comprises information regarding ~~the~~ a current status of ~~the~~ a channel including at least one of channel free, channel busy, and channel unavailable.

14. (Original) ~~A method according to~~ The method of claim 15, wherein between ~~the~~ notifying and ~~the~~ seizing steps, the method comprises ~~the further steps of:~~

~~determining, by the central station, if the notification collides with another notification from another remote station; and~~

~~sending~~ receiving, by from the central station, an acknowledgment ~~to the notifying remote station, if~~ indicating no collision between a notification sent from the remote station and another notification sent from another remote station ~~occurs; and~~

wherein ~~the~~ seizing step is performed following receipt of ~~only if~~ the acknowledgment is ~~received by the remote station.~~

15. (Currently Amended) ~~A method according to~~ The method of claim 14, wherein:  
~~the step of identifying, by the remote station, a set of published~~ the satellite network  
resources needed to establish the radio connection comprises identifying an inbound code  
division multiple access (CDMA) channel characterised characterized by a frequency and a code;  
~~the step of notifying, by said remote station,~~ the central station about the ~~identified~~  
satellite network resources comprises initiating, over an ~~the identified~~ inbound channel, a point-  
to-point protocol (PPP) session establishment comprising an address of the remote station and a  
resource notification comprising an identification of the inbound channel; and  
~~the step of sending, by the central station, an acknowledgment to the notifying remote~~  
~~station, if no collision occurs~~ comprises ~~sending~~ a PPP acknowledgment.

16. (Currently Amended) A method, performed by a central station, of allocating  
satellite network resources ~~by a central station~~ in a satellite communication system comprising  
remote stations coupled to the central station by a satellite network, wherein different remote  
stations are located in different geographic domains, in which a remote station is coupled to the  
~~central station by a network,~~ the method comprising ~~the steps of:~~  
establishing, ~~by the central station,~~ a list of information about available satellite network  
resources for one or more of the geographic domains;  
publishing, ~~by the central station,~~ the list of information for access by remote stations in  
the one or more geographic domains; said remote station;

~~whereby when the receiving, from a remote station, sends a notification regarding the seizing, by the remote station, of a set of indicating that at least some of the satellite network resources have been seized by the remote station; in the list to the central station, the method comprises the further steps of:~~

~~updating, by the central station, said the list of information about available satellite network resources to thereby reflect the seizing by the remote station of said set; and~~

~~communicating, by the central station, the updated list only to remote stations in the one or more geographic locations said remote station.~~

17 to 23. (Canceled)

24. (New) The method of claim 16, wherein the information about available satellite network resources comprises identification of outbound and inbound channels, availability of channel capacity, and energy density of channels in the resource domain.

25. (New) The method of claim 16, wherein a size of at least one of the geographic domains changes; and

wherein communicating comprises communicating an amended list of information about available network resources that reflects a change in the size of the at least one of the geographic domains.

26. (New) The method of claim 16, wherein the list of information is published using one of code division multiple access (CDMA) and time division multiple access (TDMA) modulation.

27. (New) The method of claim 16, wherein the satellite communication system comprises:

remote stations coupled to central stations via one or more satellites; and  
wherein the remote station is configured to switch between operation with the central station and any other said central station for which the remote station can receive incoming communications.

28. (New) The method of claim 16, wherein:  
the list of information comprises at least one of static and dynamic information; and  
an updated version of the list comprising static information is published less frequently than an updated version of the list comprising dynamic information.

29. (New) The method of claim 16, wherein the static information comprises, in regard to inbound and outbound channels that are allocated for use in a resource domain, at least one of frequency, timeslot, code sequence, turbo-coding rate, modulation type, and Grade of Service.



30. (New) The method of claim 16, wherein the dynamic information comprises information regarding a current status of a channel including at least one of channel free, channel busy, and channel unavailable.

31. (New) A remote station configured to establish a radio connection in a satellite communication system that comprises remote stations coupled to a central station by a satellite network, wherein different remote stations are located in different geographic domains, the remote station being in a geographic domain, the remote station comprising circuitry to:

receive, from the central station, a list of information about available satellite network resources for one or more geographic domains;

identify satellite network resources needed to establish the radio connection, wherein identifying comprises:

determining a current geographic location of the remote station;

referencing a database of geographic domains using the geographic location to identify the geographic domain with which the remote station is associated; and

referencing the list of information using the geographic domain to establish which satellite network resources are available to the remote station;

notify the central station about the satellite network resources that are available to the remote station;

seize the satellite network resources needed to establish the radio connection to thereby establish the radio connection; and

receive, from the central station, an updated version of the list of information that has been updated to reflect seizing of the satellite network resources.

32. (New) The remote station of claim 31, wherein the list of information is published by the central station for receipt by the remote station.

33. (New) The remote station of claim 31, wherein the information about available satellite network resources comprises identification of outbound and inbound channels, availability of channel capacity, and energy density of channels in the resource domain.

34. (New) The remote station of claim 31, wherein a size of at least one of the geographic domains changes; and

wherein receiving the list of information comprises receiving, from the central station, an amended list of information about available network resources that reflects a change in the size of the at least one of the geographic domains.

35. (New) The remote station of claim 31, wherein the database of geographic domains is stored on the remote station when the remote station is manufactured.

36. (New) The remote station of claim 31, wherein the remote station is configured to receive the database of geographic domains before it is determined to establish the radio connection.

37. (New) The remote station of claim 31, wherein the remote station is configured to receive the database of geographic domains after it is determined to establish the radio connection.

38. (New) The remote station of claim 31, wherein the list of information is received using one of code division multiple access (CDMA) and time division multiple access (TDMA) modulation.

39. (New) The remote station of claim 31, wherein the satellite communication system comprises:

remote stations coupled to central stations via one or more satellites; and

wherein the remote station is configured to switch between operation with the central station and any other central station for which the remote station can receive incoming communications.

40. (New) The remote station of claim 31, wherein:

the list of information comprises at least one of static and dynamic information; and

an updated version of the list of information comprising static information is received less frequently than an updated version of the list of information comprising dynamic information.

41. (New) The remote station of claim 40, wherein the static information comprises, in regard to inbound and outbound channels that are allocated for use in a resource domain, at least one of frequency, timeslot, code sequence, turbo-coding rate, modulation type, and Grade of Service.

42. (New) The remote station of claim 40, wherein the dynamic information comprises information regarding a current status of a channel including at least one of channel free, channel busy, and channel unavailable.

43. (Original) The remote station of claim 31, further comprising circuitry to:  
receive, from the central station, an acknowledgment indicating no collision between a notification sent from the remote station and another notification sent from another remote station;

wherein seizing is performed following receipt of the acknowledgment.

44. (New) The remote station of claim 43, wherein:  
identifying the satellite network resources needed to establish the radio connection comprises identifying an inbound code division multiple access (CDMA) channel characterized by a frequency and a code;

notifying the central station about the satellite network resources comprises initiating, over an inbound channel, a point-to-point protocol (PPP) session establishment comprising an

address of the remote station and a resource notification comprising an identification of the inbound channel; and

the acknowledgment comprises a PPP acknowledgment.

45. (New) A central station configured to allocate satellite network resources in a satellite communication system comprising remote stations coupled to the central station by a satellite network, wherein different remote stations are located in different geographic domains, the central station comprising circuitry to:

establish a list of information about available satellite network resources for one or more of the geographic domains;

publish the list of information for access by remote stations in the one or more geographic domains;

receive, from a remote station, a notification indicating that at least some of the satellite network resources have been seized by the remote station;

update the list of information about available satellite network resources to reflect seizing by the remote station; and

communicate the updated list only to remote stations in the one or more geographic locations.

46. (New) The central station of claim 45, wherein the information about available satellite network resources comprises identification of outbound and inbound channels, availability of channel capacity, and energy density of channels in the resource domain.

47. (New) The central station of claim 45, wherein a size of at least one of the geographic domains changes; and

wherein communicating comprises communicating an amended list of information about available network resources that reflects a change in the size of the at least one of the geographic domains.

48. (New) The central station of claim 45, wherein the list of information is published using one of code division multiple access (CDMA) and time division multiple access (TDMA) modulation.

49. (New) The central station of claim 45, wherein the satellite communication system comprises:

remote stations coupled to central stations via one or more satellites; and

wherein the remote station is configured to switch between operation with the central station and any other said central station for which the remote station can receive incoming communications.

50. (New) The central station of claim 45, wherein:  
the list of information comprises at least one of static and dynamic information; and  
an updated version of the list comprising static information is published less frequently than an updated version of the list comprising dynamic information.

51. (New) The central station of claim 45, wherein the static information comprises, in regard to inbound and outbound channels that are allocated for use in a resource domain, at least one of frequency, timeslot, code sequence, turbo-coding rate, modulation type, and Grade of Service.

52. (New) The central station of claim 45, wherein the dynamic information comprises information regarding a current status of a channel including at least one of channel free, channel busy, and channel unavailable.